Colorectal Cancer:
The Importance of Early Detection

AT-A-GLANCE
1999

"We now have clearer insight into the natural history of colorectal cancer, better understanding of its biologic features, and clinical skills with which to intervene and make a difference for many people. Colorectal cancer screening has come of age."

Sidney J. Winawer, MD, Memorial Sloan-Kettering Cancer Center, New York
Reprinted by permission of *The New England Journal of Medicine*, Massachusetts Medical Society

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Centers for Disease Control and Prevention

CDC
CENTERS FOR DISEASE CONTROL AND PREVENTION

Colorectal Cancer

How Common Is Colorectal Cancer?

Colorectal cancer—or cancer of the colon or rectum—is the second leading cause of cancer-related death in the United States. The American Cancer Society estimates that 56,600 Americans will die of colorectal cancer in 1999.

When skin cancer is excluded, colorectal cancer is the third most commonly diagnosed cancer for both men and women in the United States. Approximately 129,400 new cases will be diagnosed during 1999. For men, colorectal cancer follows prostate and lung cancers in frequency; for women, it follows breast and lung cancers.

Who Is at Risk?

The risk of developing colorectal cancer generally increases with advancing age. African Americans are more likely than whites to be diagnosed with this disease and are more likely to die of it.

Other major risk factors include having inflammatory bowel disease, a family history of colorectal cancer or colorectal polyps, and certain hereditary syndromes. Additional conditions contributing to increased risk for colorectal cancer include a personal history of colorectal cancer or polyps or of ovarian, endometrial, or breast cancers. Lack of regular physical activity can contribute to increasing one's risk; low fruit and vegetable intake, a low-fiber and high-fat diet, obesity, and alcohol consumption are other possible risk factors.

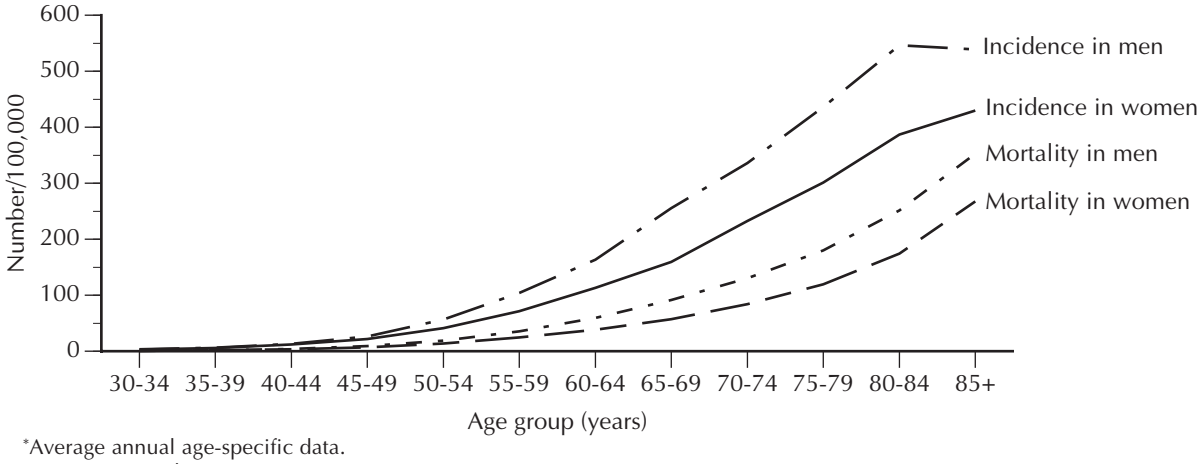
Early Detection—A Key to Survival

Survival is greatly enhanced when colorectal cancer is detected early and appropriate treatment provided. Despite the availability of effective screening tests, colorectal cancer screening is underused. Studies show that only 37% of colorectal cancers are diagnosed at a localized stage.

When colorectal cancer is diagnosed at a localized stage, death rates are low: only about 9% of these patients will die within 5 years. Once the disease has progressed to a regional stage, about 34% of patients will die within 5 years. When the disease is diagnosed at an advanced stage (has spread to distant sites), death rates are high: about 92% of patients will die within 5 years. For African Americans, 5-year survival rates are lower than those for whites, and a smaller proportion of cases are diagnosed at an early stage.

Precancerous polyps may be present in the colon for years before invasive cancer develops. Colorectal cancer can actually be prevented by removing precancerous polyps. Reducing the number of deaths from colorectal cancer depends on detecting and removing precancerous colorectal polyps, as well as detecting and treating cancer in its earliest stages.

Cancers of the Colon and Rectum: Incidence and Mortality Rates, by Sex, United States, 1990–1995*



*Average annual age-specific data.
Source: National Cancer Institute, *SEER Cancer Statistics Review, 1973–1995.*

Types of Screening

Two currently available tests have been shown to be beneficial in screening for colorectal cancer:

- **The fecal occult blood test (FOBT)** is a chemical test for blood in a stool sample. A study conducted in the United States showed a 33% reduction in colorectal cancer deaths among the participants who were annually screened by FOBT.
- **Flexible sigmoidoscopy** can detect about 65%–75% of polyps and 40%–65% of colorectal cancers. In this screening procedure, a hollow, lighted tube is used to visually inspect the wall of the rectum and the left side of the colon.

Three other tests for colorectal cancer are commonly used in clinical practice, although no direct evidence as yet supports their efficacy in reducing illness and death. Two of these tests, colonoscopy and double-contrast barium enema (DCBE), are used to examine the interior wall of the entire colon. They are also used as follow-up diagnostic tools when the results of another screening test are positive. A third common procedure, digital rectal examination, can inspect only a limited area.

Guidelines for Screening

Underuse of Screening

Currently, screening for colorectal cancer lags far behind screening for other cancers, perhaps because the effectiveness of colorectal cancer screening has only recently been documented. Findings from CDC's state-based Behavioral Risk Factor Surveillance System indicated that in 1997, only 41% of adults aged 50 and older had ever had a sigmoidoscopy or proctoscopy (an earlier and now less frequently used procedure) for screening or diagnostic purposes, and only 29% of respondents reported having had one within the past 5 years. Of the survey respondents, 39% of adults aged 50 and older reported ever having an FOBT using a home kit, and only 19% reported having this test in the preceding year.

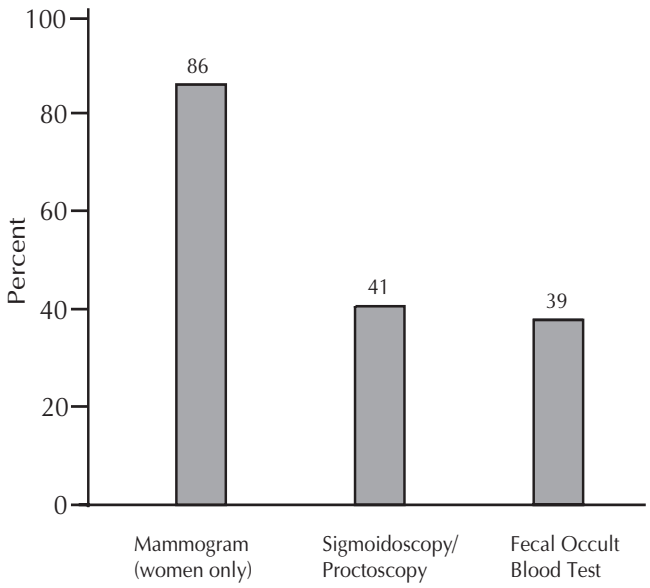
Current Guidelines

Acting on recent evidence that screening, along with appropriate follow-up and treatment, reduces deaths from colorectal cancer, several scientific organizations recommend regular screening of all average-risk adults aged 50 and older. Recommended screening procedures include the following:

- Annual FOBT.
- Flexible sigmoidoscopy every 5 years.
- Total colon examination by colonoscopy every 10 years or by DCBE every 5–10 years.

Those at higher risk should be offered more intensive surveillance. The U.S. Preventive Services Task Force, the American Cancer Society, and the Interdisciplinary Task Force (originally convened by the federal Agency for Health Care Policy and Research and supported by five major gastroenterological societies) have developed detailed guidelines related to colorectal cancer screening. These guidelines all emphasize the key health benefit of colorectal cancer screening—finding and removing precancerous polyps and cancer, thus either preventing the development of cancer or detecting this disease at an early, more treatable stage.

Prevalence of Ever Having a Particular Cancer Screening Test—U.S. Adults Aged 50 and Older



Source: CDC, Behavioral Risk Factor Surveillance System, 1997.

CDC Program Activities

With approximately $2.5 million available in fiscal year 1999 to target colorectal cancer, CDC is promoting colorectal cancer screening nationwide by educating health care providers and the public about the benefits of screening, the availability of screening procedures, and current screening guidelines. CDC also supports investigations to determine clinical and consumer barriers to screening. For example,

- The National Colorectal Cancer Roundtable, established by CDC and the American Cancer Society, is strengthening the network of public and private organizations promoting colorectal cancer screening among all people for whom screening is appropriate. Partners include state health departments, professional organizations (such as the American Digestive Health Foundation and the Digestive Disease National Coalition), medical societies, federal agencies, consumers, cancer survivors, managed care organizations, private industry, health educators, and the medical media.
- In September 1998, the Roundtable participated in a special White House event featuring First Lady Hillary Rodham Clinton, NBC *Today* show co-anchor Katie Couric, and *Good Housekeeping* Editor-in-Chief Ellen Levine to promote colon cancer prevention and early detection. As part of the event, public service announcements were released to raise public awareness about the benefits of colorectal cancer screening. *Good Housekeeping* plans to continue its emphasis on this important public health concern during 1999.
- CDC is working with the Health Care Financing Administration to promote Medicare's new coverage for colorectal cancer screening. This effort is part of CDC's larger communication initiative to promote colorectal cancer screening among Americans aged 50 and older. CDC is planning a multiyear, targeted public education campaign to promote colorectal cancer screening; the campaign is tentatively scheduled to begin in winter 1998–1999.
- CDC has provided national leadership in bringing together state health department personnel and other key partners to identify opportunities and develop strategies for colorectal cancer initiatives. During 1999, CDC will support six states and tribal organizations to begin implementing comprehensive cancer control programs, which will include efforts targeting colorectal cancer.

In addition, CDC

- Supports the Agency for Health Care Policy and Research, the Harvard School of Public Health, and the RAND Corporation in developing and evaluating a colorectal cancer screening measure for potential inclusion in the Health Plan Employer Data and Information Set (HEDIS), a system of quality monitoring for national managed care plans.
- Supports studies with the Kaiser Permanente Medical Care Program of Northern California and the Imperial Cancer Research Fund in Great Britain to determine factors associated with patients' interest and participation in sigmoidoscopy screening.
- Works with the Alliance of Community Health Plans (ACHP) to validate self-reported history of colorectal cancer screening by comparing responses from a telephone survey to information recorded on medical charts for a sample of adults aged 50 and older.
- Works with the ACHP and the Kaiser Permanente Medical Care Program of Northern California to study potential complications associated with sigmoidoscopy.
- Provides support to the Center for Health Promotion and Disease Prevention at the University of North Carolina at Chapel Hill to develop standards for performing and reporting results of sigmoidoscopies.
- Works with the American Cancer Society and the National Cancer Institute to conduct a national survey of primary care physicians to determine their knowledge and attitudes about colorectal cancer screening and their perceptions of screening barriers.

For more information or additional copies of this document, please contact the Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Mail Stop K–64, 4770 Buford Highway NE, Atlanta, GA 30341–3717, (770) 488-4751. Voice Information System: 1 (888)842-6355 Fax: (770) 488-4760 cancerinfo@cdc.gov http://www.cdc.gov/cancer